

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
Information Center (STIC) no errors detected.**

Application Serial Number: 10/542,958
Source: IFWP
Date Processed by STIC: 08/11/2006

ENTERED



IFWP

RAW SEQUENCE LISTING

DATE: 08/11/2006

PATENT APPLICATION: US/10/542,958

TIME: 11:01:02

Input Set : A:\96700-1031 - from 862 seq list.ST25.txt

Output Set : N:\CRF4\08112006\J542958.raw

3 <110> APPLICANT: ALBERT EINSTEIN COLLEGE OF MEDICINE OF YESHIVA UNIVERSITY
 4 JACOBS, JR., William R.
 5 HSU, Tsungda
 6 BARDAROV, Stoyan (deceased)
 7 SAMBANDAMURTHY, Vasan
 8 MORRIS, Sheldon
 10 <120> TITLE OF INVENTION: USE OF MYCOBACTERIAL VACCINES IN CD4+ OR CD8+
 11 LYMPHOCYTE-DEFICIENT MAMMALS
 13 <130> FILE REFERENCE: 96700/1031
 C--> 15 <140> CURRENT APPLICATION NUMBER: US/10/542,958
 C--> 16 <141> CURRENT FILING DATE: 2005-07-21
 18 <150> PRIOR APPLICATION NUMBER: US 60/442,631
 19 <151> PRIOR FILING DATE: 2003-01-24
 21 <160> NUMBER OF SEQ ID NOS: 12
 23 <170> SOFTWARE: PatentIn version 3.3
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 9454
 27 <212> TYPE: DNA
 28 <213> ORGANISM: Mycobacterium tuberculosis
 30 <400> SEQUENCE: 1
 31 gatcgtgggt gccgccggg ggatgccgcc gatggcaccg ctggccccgt tattgccggc 60
 33 ggcggcagat atcgggttgc acatcattgt cacctgtcag atgagccagg cttacaaggc 120
 35 aaccatggac aagttcgtcg gcgccgatt cgggtcgggc gctccgacaa tgttcctttc 180
 37 gggcgagaag caggaattcc catccagtga gttcaaggtc aagcggcgcc cccctggcca 240
 39 ggcattttct gtctcgccag acggcaaaga ggtcatccag gccccctaca tcgagcctcc 300
 41 agaagaagtg ttctcgacac cccaagcgc cggttaagat tatttcattg ccggtgtagc 360
 43 aggacccgag ctccagcccg taatcgagtt cgggcaatgc tgaccatcgg gtttgtttcc 420
 45 ggctataacc gaacggtttg tgtacgggat acaaatacag ggagggaaga agtaggcaaa 480
 47 tggaaaaaat gtcacatgat ccgatcgctg ccgacattgg cacgcaagtg agcgacaacg 540
 49 ctctgcacgg cgtgacggcc ggctcgacgg cgctgacgtc ggtgaccggg ctggttcccg 600
 51 cggggggccga tgaggtctcc gcccaagcgg cgacggcggt cacatcggag ggcattccaat 660
 53 tgctggcttc caatgcatcg gcccaagacc agctccaccg tcggggcgaa gcggtccagg 720
 55 acgtcgcccc cacctattcg caaatcgacg acggcgccgc cggcgtcttc gccgaatagg 780
 57 cccccaacac atcggaggga gtgatcacca tgctgtggca cgcaatgcc aaggagctaa 840
 59 ataccgcacg gctgatggcc ggcgcgggtc cggctccaat gcttgcgggc gccgcgggat 900
 61 ggcagacgct ttcgcggtct ctggacgtc aggcgctcga gttgaccgcg cgctgaact 960
 63 ctctgggaga agcctggact ggaggtggca gcgacaaggc gcttgcggt gcaacgccga 1020
 65 ttggtggtct gctacaaacc gcgtcaacac aggccaaagc ccgtgcgatg caggcgacgg 1080
 67 cgcaagccgc ggcatacacc caggccatgg ccacgacgcc gtcgctgccg gagatcgccg 1140
 69 ccaaccacat caccagggcc gtccttacgg ccaccaactt cttcggtatc aacacgatcc 1200
 71 cgatcgcggt gaccgagatg gattatttca tccgtatgtg gaaccaggca gccctggcaa 1260
 73 tggaggtcta ccaggccgag accgcggtta acacgctttt cgagaagctc gagccgatgg 1320
 75 cgtcgatcct tgatcccggc gcgagccaga gcacgacgaa cccgatcttc ggaatgccct 1380

RAW SEQUENCE LISTING

DATE: 08/11/2006

PATENT APPLICATION: US/10/542,958

TIME: 11:01:02

Input Set : A:\96700-1031 - from 862 seq list.ST25.txt

Output Set: N:\CRF4\08112006\J542958.raw

```

77 ccctggcag ctcaacaccg gttggccagt tgccgcgggc ggctaccag accctcgggc 1440
79 aactgggtga gatgagcggc ccatgcagc agctgacca gccgctgcag caggtgacgt 1500
81 cgttggtcag ccaggtgggc ggcaccggcg gcggcaaccc agccgacgag gaagccgcgc 1560
83 agatgggctt gctcggcacc agtccgctgt cgaaccatcc gctggctggt ggatcaggcc 1620
85 ccagcgcggg cgcgggcctg ctgcgcgcgg agtcgctacc tggcgcagggt gggctcgttg 1680
87 cccgcacgcc gctgatgtct cagctgatcg aaaagccggg tgccccctcg gtgatgccgg 1740
89 cggctgctgc cggatcgtcg gcgacgggtg gcgcgcctcc ggtgggtgcg ggagcgatgg 1800
91 gccagggtgc gcaatccggc ggctccacca ggccgggtct ggtcgcgcgg gcaccgctcg 1860
93 cgcaggagcg tgaagaagac gacgaggacg actgggacga agaggacgac tgggtgagctc 1920
95 ccgtaatgac aacagacttc ccggccaccc gggccggaag acttgccaac attttggcga 1980
97 ggaaggtaaa gagagaaagt agtcagcat ggcagagatg aagaccgatg ccgctacct 2040
99 cgcgcaggag gcaggtaat ctgcgaggat ctccggcgac ctgaaaaccc agatcgacca 2100
101 ggtggagtgc acggcagggt cgttgcaagg ccagtggcgc ggcgcggcgg ggacggccgc 2160
103 ccaggccgcg gtgggtgcgt tccaagaagc agccaataag cagaagcagg aactcgacga 2220
105 gatctcgacg aatattcgct aggcggcgt ccaatactcg agggccgacg aggagcagca 2280
107 gcaggcgctg tctcgcgaaa tgggcttctg acccgctaata acgaaaagaa acggagcaaa 2340
109 aacatgacag agcagcagtg gaatttcgcg ggtatcgagg ccgcggcaag cgcaatccag 2400
111 ggaaatgtca cgtccattca ttcctcctt gacgagggga agcagtcctt gaccaagctc 2460
113 gcagcggcct ggggcggtag cggttcggag gcgtaccagg gtgtccagca aaaatgggac 2520
115 gccacggcta ccgagctgaa caacgcgctg cagaacctgg cgcggacgat cagcgaagcc 2580
117 ggtcaggcaa tggcttcgac cgaaggcaac gtcactggga tgttcgcata gggcaacgcc 2640
119 gagttcgcgt agaatagcga aacacgggat cgggcgagtt cgaccttcg tccgtctcgc 2700
121 cctttctcgt gtttatacgt ttgagcgcac tctgagaggt tgtcatggcg gccgactacg 2760
123 acaagctctt ccggccgcac gaaggatagg aagctccgga cgatatggca gcgcagccgt 2820
125 tcttcgaccc cagtgttctg tttccgcggc cgcccgcatc ggcaaacctc ccgaagccca 2880
127 acggccagac tccgcccccg acgtccgacg acctgtcgga gcgggttcgtg tcggccccgc 2940
129 cgccgccacc cccaccccca cctccgcctc cgccaaactc gatgccgatc gccgcaggag 3000
131 agccgcctc gccggaaccg gccgcataca aaccacccac acccccatg cccatcgccg 3060
133 gaccggaacc gggccacccc aaaccaccca cacccccac gccatcgcc ggaccggaac 3120
135 cgccccacc caaaccaccc acacctccga tgcccatcgc cggacctgca cccaccccaa 3180
137 ccgaatccca gttggcgccc cccagaccac cgacaccaca aacgccaacc ggagcgccgc 3240
139 agcaaccgga atcaccggcg cccacgtac cctcgacgg gccacatcaa cccggcgca 3300
141 ccgcaccagc accgccttg gcaaagatgc caatcgcgga acccccgccc gctccgtcca 3360
143 gaccgtctgc gtccccggcc gaaccacga cccggcctgc cccccaacac tcccgacgtg 3420
145 cgcgcggggg tcaccgctat cgcacagaca ccgaacgaaa cgtcggggaag gtagcaactg 3480
147 gtccatccat ccaggcgcgg ctgcgggcag aggaagcatc cggcgcgag ctcgcccccg 3540
149 gaacggagcc ctgcgcagcg ccgttggggc aaccgagatc gtatctggct ccgcccacc 3600
151 gccccgcgcc gacagaacct cccccagcc cctcgccgca gcgcaactcc ggtcggcgtg 3660
153 ccgagcgacg cgtccacccc gatttagccg cccaacatgc cgcggcgcaa cctgattcaa 3720
155 ttacggccgc aaccactggc ggtcgtcgcc gcaagcgtgc agcgccggat ctgcagcgga 3780
157 cacagaaatc cttaaggccg gcggccaagg ggccgaagg gaagaagggtg aagcccaga 3840
159 aaccgaaggc caggaagccg cccaaagtgg tgcgcagcg cggctggcga cattgggtgc 3900
161 atgcgttgac gcgaatcaac ctgggctgt caccgacga gaagtacgag ctggacctgc 3960
163 acgtcagat ccgcgcgaat ccccgcggt cgtatcagat cgccgtcgtc ggtctcaaag 4020
165 gtggggctgg caaaaccacg ctgacgacag cgttgggtc gacgttggct caggtcggg 4080
167 ccgaccgat cctggctcta gacgcggatc caggcgccg gatcgggtag 4140
169 ggcgacaatc gggcgcgacc atcgctgatg tgcttgacga aaaagagctg tcgactaca 4200
171 acgacatccg cgcacacact agcgtcaatg cggtaactct ggaagtgtg ccggcaccgg 4260
173 aatacagctc ggcgcagcgc gcgctcagcg acgcccactg gcatttcac gccgatcctg 4320

```

RAW SEQUENCE LISTING

DATE: 08/11/2006

PATENT APPLICATION: US/10/542,958

TIME: 11:01:02

Input Set : A:\96700-1031 - from 862 seq list.ST25.txt

Output Set: N:\CRF4\08112006\J542958.raw

175	cgctcgaggtt	ttacaacctc	gtcttggctg	attgtggggc	cggtctcttc	gacccgctga	4380
177	cccgcggcgt	gctgtccacg	gtgtccggtg	tcgtggctgt	ggcaagtgtc	tcaatcgacg	4440
179	gcgcacaaca	ggcgctcggtc	gcgttggact	ggttgcgcaa	caacggttac	caagatttgg	4500
181	cgagccgcgc	atgcgtgggtc	atcaatcaca	tcatgccggg	agaacccaat	gtcgcagtta	4560
183	aagacctggt	gcggcatttc	gaacagcaag	ttcaaccggg	ccgggtcgtg	gtcatgccgt	4620
185	gggacaggca	cattgcggcc	ggaaccgaga	tttcaactga	cttgctcgac	cctatctaca	4680
187	agcgcaaggt	cctcgaattg	gccgcagcgc	tatccgacga	tttcgagagg	gctggacgtc	4740
189	gttgagcgca	cctgctgttg	ctgctgggtc	taccgccggc	ggggcaaccg	ctgcgcggcc	4800
191	tgccaccacc	cggttgacga	tcttgaccgg	cagacggatg	accgatttgg	tactgccagc	4860
193	ggcggtgccc	atggaaactt	atattgacga	caccgtcgcg	gtgctttccg	aggtgttggg	4920
195	agacacgccg	gctgatgtac	tcggcggtct	cgactttacc	gcgcaaggcg	tgtgggcgtt	4980
197	cgctcgctcc	ggatcgccgc	cgctgaagct	cgaccagcca	ctcgatgacg	ccggggtggt	5040
199	cgacgggtca	ctgctgactc	tgggtcgagt	cagtcgcacc	gagcgctacc	gaccgttggg	5100
201	cgaggatgtc	atcgacgcga	tcgccgtgct	tgacgagcca	cctgagttcg	accgcacggc	5160
203	attgaatcgc	tttgtggggg	cggcgatccc	gcttttgacc	gcgcccgtca	tcgggatggc	5220
205	gatgcggggc	tgggtgggaa	ctgggcgtag	cttgtggtgg	ccgttggcga	ttggcatcct	5280
207	ggggatcgct	gtgctggtag	gcagcttcgt	cgcgaaacagg	ttctaccaga	gcggccacct	5340
209	ggccgagtg	ctactggtca	cgacgtatct	gctgatcgca	accgccgcag	cgctggccgt	5400
211	gccgttgccc	cgcggggtca	actcgttggg	ggcgccacaa	gttgccggcg	ccgtacgggc	5460
213	cgtgctgttt	ttgaccttga	tgacgcgggg	cgccctcggg	aagcgtcatg	agttggcgct	5520
215	gtttgcgctg	atcacgccta	tcgcggtcat	cgcgccgcgc	gctgccttcg	gctatggata	5580
217	ccaggactgg	gtccccgcgg	gggggatcgc	attcgggctg	ttcattgtga	cgaatgcggc	5640
219	caagctgacc	gtcgcgggtc	cgcggatcgc	gctgccgcgc	attccgggtac	ccggcgaaac	5700
221	cgtggacaac	gaggagttgc	tcgatcccg	cgcgaccccg	gaggtacca	gcgaagaaac	5760
223	cccgacctgg	caggccatca	tcgctcggt	gcccgcgtcc	gcggtccggc	tcaccgagcg	5820
225	cagcaaaactg	gccaagcaac	ttctgatcgg	atacgtcacg	tcgggcaccc	tgattctggc	5880
227	tgcgggtgcc	atcgcggtcg	tgggtgcggc	gcacttcttt	gtacacagcc	tgggtggtcgc	5940
229	gggtttgatc	acgacgctct	gcggatctcg	ctcgcggtct	tacgccgagc	gctggtgtgc	6000
231	gtgggcgttg	ctggcgggca	cggtcgcgat	tccgacgggt	ctgacggcca	aactcatcat	6060
233	ctggtagccg	cactatgcct	ggctgttgtt	gagcgtctac	ctcacggtag	ccctggttgc	6120
235	gctcgtggtg	gtcgggtcga	tggctcacgt	ccggcgcggt	tcaccgggtc	taaaacgaac	6180
237	tctggaattg	atcgacggcg	ccatgatcgc	tgccatcatt	cccatgctgc	tgtggatcac	6240
239	cggggtgtac	gacacgggtc	gcaatatccg	gttctgagcc	ggatcggtcg	attggcggtt	6300
241	cctgacagaa	catcgaggac	acggcgcgag	tttgcatacc	ttcggcgccc	gacaaattgc	6360
243	tgcgattgag	cgtgtggcgc	gtccggtaaa	atttgctcga	tggggaacac	gtataggaga	6420
245	tccggcaatg	gctgaaccgt	tggccgtcga	tcccaccggc	ttgagcgag	cgcccgcgaa	6480
247	attggccggc	ctcgtttttc	cgcagcctcc	ggcgccgata	gcggtcagcg	gaacggattc	6540
249	ggtggtagca	gcaatcaacg	agaccatgcc	aagcatcgaa	tcgctggtca	gtgacgggct	6600
251	gcccggcggtg	aaagccgccc	tgactcgaac	agcatccaac	atgaacgcgg	cgccggacgt	6660
253	ctatgcgaag	accgatcagt	cactgggaac	cagtttgagc	cagtatgcat	tcggctcgct	6720
255	gggcgaaggc	ctggctggcg	tcgcctcggt	cggtggtcag	ccaagtccag	ctaccagct	6780
257	gctgagcaca	ccggtgtcac	aggtcacgac	ccagctcggc	gagacggccg	ctgagctggc	6840
259	accccggtgt	gttgcgacgg	tgcgcgaact	cgttcagctg	gctccgcacg	ccgttcagat	6900
261	gtcgcaaaaac	gcatccccc	tcgctcagac	gatcagtc	accgcccac	aggccgcccc	6960
263	gagcgcgca	ggcggcagcg	gcccatagcc	cgcacagctt	gccagcgctg	aaaaaccggc	7020
265	caccgagcaa	gcgagccgg	tccacgaagt	gacaaacgac	gatcaggggc	accaggcgga	7080
267	cgtgcagccg	gcccaggtcg	ttgcgcggcg	acgtgacgaa	ggcgccggcg	catcaccggg	7140
269	ccagcagccc	ggcgggggcg	ttcccgcgca	agccatggat	accggagccg	gtgcccgcgc	7200
271	agcggcgagt	ccgctggcg	cccccgctga	tccgtcgact	ccggcaccct	caacaaccac	7260

RAW SEQUENCE LISTING

DATE: 08/11/2006

PATENT APPLICATION: US/10/542,958

TIME: 11:01:02

Input Set : A:\96700-1031 - from 862 seq list.ST25.txt

Output Set: N:\CRF4\08112006\J542958.raw

```

273 aacgttgtag accgggcctg ccagcggctc cgtctcgcac gcagcgcctg ttgctgtcct 7320
275 ggcctcgta gcatgcggcg gccagggccc ggtcgagcaa cccggtgacg tattgccagt 7380
277 acagccagtc cgcgacggcc acacgctgga cggccgcgct agtcgcagtg tgcgcttggg 7440
279 gcagggcaat ctctgtgtag tgggcagcgt agggccgga cggccgcaga tgagcggcct 7500
281 cgcggccggt agcgggtgctg gtcattgggt tcatcagctc gaaccacagc atgtgccgct 7560
283 catcgcccgg tggattgaca tccaccggcg ccggcggcaa caagtgcagc aaacgctgat 7620
285 cggtagtgta ggccagctga gccgcgcgcg aggggtcgac gacctccagc cgcgaccggc 7680
287 ccgtcatttt gccgctctcc ggaatgtcat ctggctccag cacaatcttg gccacaccgg 7740
289 gatccgaact ggccaactgc tccgcgggtac cgatcaccgc ccgcagcgtc atgtcgtgga 7800
291 aagccgcca ggcttgacg gccaaaaccg ggtaggtggc acagcgtgca atttcgtcaa 7860
293 ccgggattgc gtgatccgcg ctggccaagt acaccttatt cggcaattcc atcccgctcg 7920
295 gtatgtagga cagccatag ctgttgacca cgacgatgga accgtcgggt gtcaccgcgg 7980
297 tgatccagaa gaaccctag tgcggcgctg gttgtcgga cgcgttgagc gccgcgcgga 8040
299 tgcgtcgcg caaccgcagc gcatcaccgc ggccacgctg gcgggcgctg gcagctgcag 8100
301 tggcggcgta gcgtgccgca cgagcgcgcg acaccgggat catcgacacc ggcgaccgt 8160
303 catctgcaga ctgcgtgcga tggggtttgt cgatgtgatc ggtcgacggc gggcgggcag 8220
305 gaggtgccgt ccgcgcgcag gccgcgcgcg tgcctgggtg cgcgcgcttg tccgaggtag 8280
307 ccaccggcgc ccgcgcagtg gcagcatgca acccgcgcgc cgaggccgcg gccgtacca 8340
309 cgctcgaacg cgcgcgcgct cccaccggcg taccgctcgg cgcggcggcc gccgcgcgtg 8400
311 cgcgcgggac accggacgcc gcagcggcg taccgcagc gcgggattcg tccgcattgg 8460
313 caggccccga ctgcgtcccc ccgcccgcgt gctggcccg caccaccagg tgctccgcca 8520
315 acgcccgggg tttgacgtgc ggcgcgggct cgcgccttg ggtgcccggg gttgctggac 8580
317 cagacggacc gggagtggcc ggtgtaaccg gctggggccc aggcgatggc gccggtgccg 8640
319 gagccggctg cgggtgtgga gcgggagctg gggtaacggg cgtggccggg gttgccgggtg 8700
321 tggccggggc gaccgggggg gtgaccggcg tgatcggggt tggctcgctt ggtgtgcccg 8760
323 gtttgaccgg ggtcaccggg gtgaccggct tgcccggggt caccggcggt acgggagtgc 8820
325 cgggcgttgg tgtgatcgga gttaccggcg ctcccgggat ggggtgtgatt ggggttcccg 8880
327 ggggtgatcg ggttcccggg gtgatcggg tcccgggtgt gccgggtgtg cccggggatg 8940
329 gcacgaccag ggtaggcacg tctgggggtg cgggcgactt ctgctgaagc aaatcctcga 9000
331 gtgcgtttct cggagggttc caattcttgg attccagcac ccgctcagcg gtctcgccga 9060
333 ccagactgac attggcccca tgcgtcgccg tgaccaatga attgatggcg gtatggcgct 9120
335 catcagcatc caggctaggg tcattctcca ggatatcgat ctcccgttga gcgccatcca 9180
337 cattattgcc gatatcggtt ttagcttgct caatcaacc ggcaatatgc ctgtgccagg 9240
339 taatcaccgt ggcgagataa tctgcagcg tcatcaattg attgatgttt gcaccaggg 9300
341 cgcggttggc agcattggcg gcgcgcgcg accataggcc gccttcgaag acgtggcctt 9360
343 tctgctggcg gcaggtgtcc aatacatcgg tgacccttgg caaaacctgg ctatattcct 9420
345 gggcccggtc atagaaagtg tcttcatcgg ctcc 9454
348 <210> SEQ ID NO: 2
349 <211> LENGTH: 1298
350 <212> TYPE: DNA
351 <213> ORGANISM: Mycobacterium tuberculosis
353 <400> SEQUENCE: 2
354 ggtctagcag ctgcgcgcg ttttcgggca caaatgccgg atcgtggccc atgtcgatcg 60
356 gtttgttgta agcgtcgaca aacacgatcc gcggctggta tgtcgggccc cgggcgtcgt 120
358 ccactgctgc gtacgcaatc agaatacca gatccccgg atgcaccaag tgcgcggcgg 180
360 caccgttgat gccaatcaca ccaactgccg gttcgccggt gatcgcgtag gtgaccagtc 240
362 gagcaccggt gtcgatatcg acgatgggta cctgttcgcc ttccagcagg tcggcggcgt 300
364 ccatcaagtc ggcacgatg gtcaccgagc cgacgtagtg caggtcggcg caggtcaccg 360
366 tggcgcgggt gatcttcgac ttcagcatcg tccgtaacat cagtttctcc aatgtgattc 420

```

RAW SEQUENCE LISTING

DATE: 08/11/2006

PATENT APPLICATION: US/10/542,958

TIME: 11:01:02

Input Set : A:\96700-1031 - from 862 seq list.ST25.txt

Output Set: N:\CRF4\08112006\J542958.raw

```

368 gaggattgcc cggatatcgt cggggcgggc ggtgccggcg aaagtccga tttcaatcgc 480
370 aatgttggtcc agcagcctgg tggtgccaag cggggcagca accagcagcc gaccggaacc 540
372 gttgagcggc atcggggccaa gcccgatatc gcgcagctcc aggtagtcga ccgccacgcc 600
374 ggggtgcagcg tcgagcaccg cacgggcggc atccagcgcg gcctgcgcgc cagccgttgc 660
376 cgcagtcgct gcggccgtta gcgccgccga gagcgcgacg gccgccgcac gctgggcccgg 720
378 gtccaggtag cggttgcgcg acgacatcgc cagcccgtcg gcttcgcgca cggtcggcac 780
380 gccgaccacc gcgacatcga ggttgaagtc cgcgaccagc tgccggatca gcaccagctg 840
382 ctggtagtcc ttctcaccga agaacacccg atccgggcgc acgatctgca gcagctttag 900
384 cagcaccgtc agcagcccg cgaatgggt tggccgcggg ccgccctcga gttcggcggc 960
386 caacggaccg ggttgacggg tggtgccgag gccgtcggga tacatcgccg cggtagttgg 1020
388 cgtgaaagcg atttccacgc ctccggcccg cagttgcgcc aggtcgctcg ccgggggtgcg 1080
390 gggataggcg tcgagatctt ccccgccacc gaattgcacg gggttgacga agatcgacac 1140
392 cagcagcacc gatccgggca cccgcttggc cgcacgcacc aacgcgaggt ggccttcgctg 1200
394 cagcgcaccc atagtaggca ccaacatcac tcgccggccg gtgagtcgca gtgcgcgact 1260
396 gacatcggcg acatcccccg gtgccgagta cacattga 1298
399 <210> SEQ ID NO: 3
400 <211> LENGTH: 771
401 <212> TYPE: DNA
402 <213> ORGANISM: Mycobacterium tuberculosis
404 <400> SEQUENCE: 3
405 aacggggcgat gagccgggac gcgtcgatgt accgcgccgc cgcggggctg caccggctgt 60
407 gcgacagcct atccggagca caggttcgcg acgtggcttg tcgcccgcat ttcgaggacg 120
409 tggcgctcac gctggtcgcg cagagcgtga ccgccgccgc cttggcccgc accgaaagcc 180
411 gtggtgcca tcacgcgcg gagtaccgct gcaccgtgcc ggagcaggca cgcagcatcg 240
413 tggtcggggg agccgacgac gcaaatgcgg tgtgtgtcca ggcgctagtg gcggtgtgct 300
415 gatgggggta tccgactggg agctggctgc ggctcgagca gcaatcgccg gtgggctcga 360
417 cgaggaccta cggtagcgcc cggatgtcac cacattggcg acggtgcctg ccagtgcgac 420
419 gaccacgca tcgctggtga cccgggaggg cgggttggtt gccggattgg atgtcgcgct 480
421 gctgacgctg aacgaagtc tgggcaccaa cggttatcgg gtgctcgacc gcgtcgagga 540
423 cggcgcccggt gtgccgccgg gagaggcact tatgacgctg gaagcccaa cgcgcggatt 600
425 gttgaccgcc gagegcacca tgttgaacct ggtcggtcac ctgtcgggaa tcgccaccgc 660
427 gacggccgcg tgggtcgatg ctgtgcgcgg gaccaaagcg aaaatccgcg ataccgtaa 720
429 gacgctgccc ggctgcgcg cgctgcaaaa atacgcgggtg cgtaccggtg g 771
432 <210> SEQ ID NO: 4
433 <211> LENGTH: 1255
434 <212> TYPE: DNA
435 <213> ORGANISM: Mycobacterium tuberculosis
437 <400> SEQUENCE: 4
438 gtgaacgagc tgctgcactt agcgcgcaat gtgtggccgc gcaatactac tcgcgatgaa 60
440 gtcggtgtgg tctgcatcgc aggaattcca ctgacgcagc tcgccaggga gtacgggacc 120
442 ccgctgttcg tcacgcagca ggacgacttt cgctcgcgct gccgagaaac cgcgcgggcc 180
444 tttggaagtg gggcgaacgt gcactatgcc gccaaaggct tcctgtgcag cgaagtagcc 240
446 cgggtgatca gcgaagaagg gctctgtctg gacgtttgca ccggtgggga gttggcggtc 300
448 gcgctgcacg ctagctttcc gcccgagcga attaccttgc acggcaacaa caaatcggtc 360
450 tcagagttga ccgctgcggt caaagccgga gtcggccata ttgtcgtcga ttcgatgacc 420
452 gagatcgagc gcctcgacgc catcgccggc gaggccggaa tcgtccagga tgtcctggtg 480
454 cgtctcaccg tcggtgtcga ggcgacacc cagcagttca tctccaccgc gcacgagacg 540
456 cgtcagccac atcggttcgc agatcttcga cgtggacggc ttcgaactcg ccgcgcaccg 600
458 tgtcatcggc ctgctacgcg acgtcgtcgg cgagttcggt cccgaaaaga cggcacagat 660

```

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 08/11/2006
PATENT APPLICATION: US/10/542,958 TIME: 11:01:03

Input Set : A:\96700-1031 - from 862 seq list.ST25.txt
Output Set: N:\CRF4\08112006\J542958.raw

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete,
per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:5,6,7,8,9,10,11,12

VERIFICATION SUMMARY

DATE: 08/11/2006

PATENT APPLICATION: US/10/542,958

TIME: 11:01:03

Input Set : A:\96700-1031 - from 862 seq list.ST25.txt

Output Set: N:\CRF4\08112006\J542958.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application Number

L:16 M:271 C: Current Filing Date differs, Replaced Current Filing Date